# GEOGRAPHIC NEWS BULLETINS

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*Photograph by Walter H. Chute and Loren Tutell*

### AN UNDERWATER BUTTERFLY FROM AFRICA

This fresh-water relative of the flying fish is the butterflyfish, the *Pantodon buchholzi*, a rare tropical pet which thrives in captivity on a diet of worms and raw beef. With "wings" fore and aft, above and below and behind, it is spectacular in spite of its plain coloring and small size (only a little larger than the picture). In an aquarium the butterflyfish skims along just below the surface with the help of its pectoral "wings" or it rests on aquatic plants anchored by the ventral fin's spreading rays (see Bulletin No. 5).

### HOW TEACHERS MAY OBTAIN THE BULLETINS

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## Spanish Morocco, African Annex to European Politics

EUROPE has been checking up on Africa, or at least on that part of north Africa's coast which is the Spanish Protectorate of Morocco. Anxiety had developed over rumors that German troops were manning forts and supervising customs and passport inspections.

This African area has caused flurries before. For, in places, Spanish Morocco is closer to the mainland of Europe than Great Britain is at any point. Here the present Spanish revolt began.

One of the smallest and northernmost of African subdivisions, it is a narrow strip sliced off the top of the continent at the western entrance to the Mediterranean. It lies directly across the Strait from Gibraltar (see illustration, next page), containing the southern of the two rocky eminences called the Pillars of Hercules, which the legendary strong man is supposed to have created by splitting a mountain in two.

### Spanish Zone One-Fifteenth as Large as French Morocco

Within sight of Gibraltar's famous fortified rock, Spanish Morocco contains one-half of the answer to that pressing question, "Who will be doorman at the Mediterranean's western gate?" While it might not become as powerful as Britain's stronghold, it could nevertheless lessen Gibraltar's strategic value.

The Spanish zone of influence in the Sultanate of Morocco is only about one-sixteenth of the whole country. Most of the Sultan's territory is under French protection, with the thin layer of Spanish Morocco on top and the tiny international zone of Tangier chipped off the upper left shoulder. The area of Spain's zone is a little larger than Maryland, with half that State's population. Texas could swallow up ten Spanish Moroccos.

Most of it is wild mountain country. A rim of coastal plain, that is fairly broad and fertile, runs along the Atlantic, but it is rather narrow along the 200 miles of Mediterranean shoreline. The few important cities are widely spaced along the coast.

Reading from left to right, one comes upon the western port of Larache on the Atlantic coast and its neighbor, the fishing village of Arzila; then Ceuta at the country's northern tip; and the mineral port of Melilla near the eastern end.

### Riff Tribesmen Resist "Protection" with Deadly Sharpshooting

Tetuan, the capital and largest city, is comparable in size with Lorain, Ohio, a baby metropolis of 44,000 people. It lies just inland from the undeveloped port of Rio Martin, and has small industries in morocco leather, tiles, and pottery.

The second and third largest cities do not belong to the Protectorate at all, but are Spain's own territory. Ceuta, governed as part of Cádiz, was taken by Spain in 1580, and Melilla has been Spanish since the days of Columbus. Ceuta lures many visitors, and its crowded oriental bazaars attract them with rare brassware prized in Europe since the Middle Ages. This ancient city, once a slave market, was the first in Africa to have transatlantic telephone service.

The cities all have a European quarter, or at least some modern hotels. But they are nevertheless mainly Moorish. Although the official language is Spanish, Arabic is more frequently heard in the noisy streets. Sharp dark features under turbans or fezzes and figures swathed in sheetlike burnouses dominate the crowds.



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*Photograph by W. Robert Moore*

**NAGOYA'S DOLPHIN-TIPPED CASTLE WAS BUILT FOR BRUTAL BUSINESS**

**This skyscraper fortress, with five stories pyramiding above the massive stone foundations, beneath its deceptively playful roofs conceals loopholes for cannon, vents for pouring down boiling oil or molten lead, and devices for dropping stones on attackers. But the only attackers in its three centuries of existence have been an earthquake, and, recently, thieves. Massively constructed of wood, and plastered white, it has walls over 15 feet thick. The gold-scaled dolphins on the roof are obscured by protective nets of steel mesh. It is still under military control; bugle calls echo over its dry moats, and townsfolk can set their watches by its noon gun. The castle is represented on a Japanese 10-sen postage stamp (see Bulletin No. 2).**

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## Nagoya, Japan's Number Three City

"MEAN enough to steal the scales off a gold fish!" This may seem like petty larceny, but in Japan recently a thief stole 58 golden scales off one of the nine-foot dolphin ornaments topping the feudal castle which towers over Nagoya, modern metropolis of mid-Japan. The scales were valued at a quarter of a million dollars.

Two huge dolphin figures, shingled with archaic gold coins, have flipped their tails skyward from the castle's roof tree for more than three centuries (see illustration, page 2). Flashing in the sunlight above the greenish bronze gables, they are a landmark throughout the rich plain of which Nagoya is the center.

Legend relates that a daring Japanese once suspended himself from a kite and sailed over the dolphins in an unsuccessful scale-snatching flight, which ended in detection, disgrace, and hara-kiri. Now the fish figures are shrouded in steel nets.

### Japan's Quota of Million-Plus Cities Exceeded Only by U. S.

Nagoya's castle is the city's chief pride and a national treasure as well. A shrewd feudal baron in 1611 "permitted" his enemies to build it for him at their expense; afterwards they were too poor to equip an army against him. Royal apartments within its protection are decorated with rare woods, carvings, and painted panels. One painting depicts a tiger, considered so lifelike that his eyes were left blank to keep him from seeing anyone to pounce upon.

The Middle Ages persist within the moats and walls of the castle, but the city outside is of, by, and for these modern times. It is one of the fastest growing in all Japan, that country where metropolises mushroom in a big way. Within this decade Nagoya has boosted itself into the million class, now surpassed only by giant Tokyo and booming Osaka. With Kyoto, the next largest, Japan has a quota of large cities second in the world only to the United States.

Nagoya is an industrial and distributing center almost in the center of Japan's main island. Behind it the rich Owari plain pours in population and provisions. The new harbor south of the city makes it a Pacific seaport with direct access to the world's shipping lanes.

### Famous for Tea Sets and Cloisonné

The two main streets intersect in the city's center and divide it literally into quarters. Stone and brick buildings, not too tall, serve as offices, hotels, or homes of wealthy citizens educated abroad. Almost ten times more numerous, however, are neat, native homes of wood and paper—spacious, light, airy, almost bare of furniture, and spotlessly clean (see illustration, next page).

Street noises of trolley car, bicycle, taxi, and jinrikisha are beginning to drown out the clop-clop of pedestrians' wooden clogs. Nagoya has "gone west" for some fashion plates. Men in kimonos wear occidental felt fedoras. Women in kimonos wear bobbed hair. The traditional costume of pre-Madame Butterfly Japan, however, is still more general than complete outfits of western haberdashery.

Growing with the city is its young textile industry. Girls walk from loom to humming loom in the cotton mills, turning out piece goods that may be dyed in Nagoya's distinctive "knotted" design before shipment from nearby wharves. Reeling of raw silk is a new development. Machine shops are now close rivals



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Spanish Morocco's highland core, the Riff Mountains, has not been thoroughly explored. The zone's southern and eastern boundaries, which cross this region, have never been clearly defined. The mountains shelter fierce Riff tribesmen, almost fanatically opposed to Spanish "protection," who staged dangerous revolts as recently as 1925, harassing the large Spanish army of occupation with their accurate sniping.

In less turbulent moments the highland people tend sheep and goats on the cedar-clad hillsides, and contribute hides, skins, and wool to the brief list of the country's exports. On the coastal plain scant crops of grains, beans, olives, and fruits produce little surplus for export. Cork forests are worked. The large-scale producers of Spanish Morocco are chickens, quantities of eggs being shipped to European kitchens.

An exciting unknown quantity is the country's natural buried treasure. Iron ore is mined to some extent, mainly around the ore port of Melilla, but known deposits of zinc, lead, and copper have not yet revealed all their possibilities.

Backwoods transportation methods have delayed mining development. Hard surfaced roads are new and few. Railroad mileage for the whole country, totaling about 150 miles, is one-tenth that of the State of Maryland. Four short lines extend briefly inland from coastal towns.

Note: Spanish Morocco is described and illustrated in "Across French and Spanish Morocco," *National Geographic Magazine*, March, 1925.

See also "Fez, Heart of Morocco," *National Geographic Magazine*, June, 1935; "Beyond the Grand Atlas," March, 1932; and "A Journey in Morocco," also "The Two Great Moorish Religious Dances," August, 1911.

**Bulletin No. 1, February 1, 1937.**

*Photograph by Angel Rubio*

**A THIRTEEN-MILE SPARK GAP BETWEEN TWO CONTINENTS**

**Europe and Africa come face to face across the Strait of Gibraltar, where the well-known shape of the Rock of Gibraltar rises dimly in the background opposite the rocky headlands of Spanish Morocco in the foreground. The squat cylinders of *presidios*, or watchtowers, dotting the coast were built to protect shipping against Barbary pirates, but they had to be provisioned from Spain and defended also from the attack of Arab tribesmen of the interior. Rumors of modern guns, barracks, fortifications along the same coast, particularly around Ceuta, caused the recent crisis. Robert Browning had such a scene as this in mind when he wrote, "In the dimmest northeast distance, dawned Gibraltar grand and gray."**

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## Animal Collectors Also To Carry American Beasts to Oriental Zoos

REVERSING the usual procedure, some American wild animals will start for the Far East soon to make their homes in zoos on the other side of the world. This was disclosed with the departure in January of the National Geographic Society-Smithsonian Institution East Indies Expedition, led by Dr. William M. Mann. The expedition will be gone for about six months.

Dr. Mann not only plans to collect rare species of animals and reptiles from the island of Sumatra and other far-away corners of the East, and to bring them back for the Washington Zoo, of which he is director, but he also will take with him several American animals, which, though common in zoos of this country, are little known in the Far East.

### To Be Presented to Zoos in Orient

It is perhaps the first time that an animal-collecting expedition ever started out from home with a good-sized menagerie included among the thousand-and-one items in its baggage.

Among Dr. Mann's animal globe-trotters will be opossums, raccoons, mountain lions, jaguars and possibly a black bear or two. Familiar to the eyes of American zoo-goers, these animals are as unusual in the Far East as tigers or aardvarks are in the United States.

Dr. Mann will present the American animals as gifts to zoos in various cities which he expects to visit in the Orient. The gifts will cause no depletion of American zoos, for there is a surplus of these animals in this country.

### Heavy Cages To Be Built when Needed

The Expedition left Washington, D. C., and first traveled overland to Vancouver, British Columbia, enroute to Netherlands East Indies, exactly halfway around the world from Washington. Its members will not only collect unusual animals but also gather geographic and natural history information and photographs.

Accompanying Dr. Mann are Mrs. Mann and Dr. Maynard Owen Williams, staff representative and photographer of the National Geographic Society. Roy Jenier and Malcolm Davis, of the staff of the Washington Zoo, will follow later in charge of the gift animals. They will carry with them a number of special "mercy traps" and a few special cases in which to carry small delicate creatures. Heavy traps and cages for larger jungle beasts will be built in the field whenever and wherever the need arises.

### "Busman's Holiday" at Tokyo Zoo

Dr. Mann and his companions sailed January 19 from Vancouver on the *Empress of Asia*. They will spend eight days in Japan, during which period they will take a "busman's holiday" by visiting the Tokyo Zoo, and then will proceed to Singapore, Straits Settlements, to obtain additional equipment. Sumatra will be reached about March 1, and the expedition will establish headquarters at or near Medan, in the northern part of the island. The party will spend about four



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to the importance of textile activities. Waterfront lumberyards supply hundreds of local sawmills.

The work which has made Nagoya famous for years, however, is the decoration of porcelain. Japan's first native potter, after studying chinaware in China, settled at Seto, a dozen miles north, and began making cups and bowls from the local reddish-brown clay, pronounced the best in Japan. Seto-ware in Japanese has now the same meaning as chinaware in English. The little town, now practically a suburb, sends truck-loads, horse-loads, and man-loads of tea sets into Nagoya to be painted, glazed, and shipped by train or by water to the rest of the world.

Imperfect pieces of porcelain are pounded into powder and used as enamel on cloisonné, which grew popular in Nagoya four centuries ago.

Note: See also "Friendly Journeys in Japan," *National Geographic Magazine*, April, 1936; "Japan, Child of the World's Old Age," and "Motor Trails in Japan," March, 1933; "Tokyo Today," February, 1932; "Some Impressions of 150,000 Miles of Travel," May, 1930; "The Empire of the Risen Sun," October, 1923; "Some Aspects of Rural Japan, September, 1922; and "The Geography of Japan," July, 1921.

**Bulletin No. 2, February 1, 1937.**

*Photograph by T. Enami*

**TEA FOR TWO INSPIRES BUSINESS AND PLEASURE IN NAGOYA**

**In Nagoya, as everywhere else in Japan, tea is a ceremony as well as a drink, calling for exquisite china and courtesy equally exquisite. But Nagoya has also a commercial interest in the custom, for one of the city's leading industries is the decoration of fragile handleless cups and other porcelain for Japanese use. Cruder ware is splashed with gaudy reds and yellows for export to western ten-cent stores. The tea party shown above is perfectly at home on the floor's spotless matting. Interior decoration includes a painted panel (left), a polished log column in the room beyond, and a dwarf pine tree in a graceful vase. Wall cupboards behind the column may contain wooden pillows and sleeping mats to make the inner room a bedless bed-chamber, after sliding paper-windowed panels have enclosed the room.**

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## Cádiz, Spain's Mystery Port Since Europe's Dawn

CÁDIZ has become a mystery port again. Three thousand years ago it beckoned Phoenician adventurers as the port beyond the end of the known world, for it lay on Spain's Atlantic coast, outside the Mediterranean. Now it is the rumored destination of flagless, nameless ships bearing rebel volunteers for the Spanish revolution.

Thus, modern warfare flings its shadow over what may be Europe's oldest "living" city. For Cádiz was ancient history in the days of ancient Rome. Towns started at the same time are windswept mounds in the desert, but Cádiz has an unbroken record of usefulness and sometimes of fame since Phoenicians founded it about 1100 B. C.

This Methuselah of European cities is the senior of Rome, almost twice as old as London, three or four times the age of Madrid, and twenty times as old as the United States. When American colonies were struggling for independence, Cádiz was the richest city of western Europe. Its wealth mounted as lumbering galleons lifted their sails above the western horizon and hove into the Bay of Cádiz, for here were unloaded Spain's precious cargoes of gold and silver from Mexico and Peru.

### Whitewashed Annually to a Marshmallowy Purity

Its name has figured in poetry as well as in history. Lord Byron praised it at tedious length, rhyming the name with "ladies." Natives call it "Cáh-dy," remembering to stress the first syllable, but other Spaniards say "Cáh-deeth" or "Cáh-deece." Romans started the name mix-up, by corrupting the old Phoenician word for hedged or walled fortress, "Gadir," into Gades.

From its origin Cádiz has been an important transfer point on several of the richest trade routes of two hemispheres. It stands where Mediterranean commerce turned a corner and became traffic on the long-unknown Atlantic. Early mariners found it a convenient spot for getting their second wind, or for meeting foreign merchants halfway.

The very location predicts that Cádiz's destiny must be worked out by water. It is built on the tip of the Island of Leon, a narrow tongue of land projecting five miles into the Atlantic, cut off entirely from the mainland by the Río Santi Petri. Crafty settlers chose this site, fortified against attack by water and isolated against attack by land, and found it relatively safe.

### Like Plaster of Paris Model of a City

Other Spanish seaports with better mainland connections have attracted the ships that formerly thronged the city's harbor, for Cádiz has only a single landward road, one street car line, and one railroad. But the city preserves a regal air still. Whitewashed buildings are dazzling against a deep blue background of sky and sea.

Clean and trim, with a seagoing shipshapeness, Cádiz appears from afar like a plaster of paris model of a city. Houses are uniformly tall, usually three stories, because there is no room for width on the narrow sea-girdled site. Flat roof lines are broken with the exclamation points of Moorish watch towers. Above the crenellated skyline rises the cathedral's golden dome. In the city's center stands the Tower of Vigilance, whose signals guide ships into and from the harbor.



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months collecting there and in other nearby tropical islands of the Netherlands East Indies.

The region to be visited is at present only poorly represented by animals in the National Zoological Park, Dr. Mann feels. A list of just what specimens will be brought back has not yet been mapped out, but mammals, reptiles, birds, and a few fishes will be the primary objects of the collectors.

In spare time, Dr. Mann also hopes to collect insects and even a few botanical specimens.

Note: See "Nature's Most Amazing Mammal" (Elephant), *National Geographic Magazine*, June, 1934; "Japan, Child of the World's Old Age," March, 1933; "Tokyo Today," February, 1932; "Among the Hill Tribes of Sumatra," February, 1930; and "By Motor Through the East Coast and Batak Highlands of Sumatra," January, 1920.

Sumatra, Tokyo, and other places to be visited by the Expedition may be located on the map, Islands of the Pacific, which can be had from The Society's Washington, D. C., headquarters at 75 cents (linen edition) or 50 cents (paper edition), postpaid.

See also in the GEOGRAPHIC NEWS BULLETINS: "Expedition to Collect Animals in Sumatra for Washington Zoo," week of December 14, 1936.

**Bulletin No. 3, February 1, 1937.**

**EAST IS EAST . . . .**

*Photograph by Ernest B. Schoedsack*

**. . . . AND WEST IS WEST . . . .**

© *S.R.A.*

**. . . . AND THE TWAIN SHALL MEET IN A ZOO!**

**Where the tiger is common in Oriental jungles, a raccoon would be a novelty. So Dr. Mann, like a modern Noah, will set forth for Sumatra with an ark well stocked with common underfoot varieties of American animals to present to zoos along the Indian Ocean and the China Sea.**

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## Tropical Toy Fishes Catch Fancy of Hobbyists

PATRIOTISM is invading the aquarium these days. Ardent Britishers are importing red, white, and blue fish from the Amazon to carry out the Coronation color scheme even in the fish bowl.

Keeping tropical fish is becoming an increasingly popular American hobby also. Boats and planes rush to New York and other large cities from the tropics with thousands of brilliant-hued inhabitants of distant rivers and seas to become living ornaments in American homes.

The armored catfish from South America has the reputation of being the most easily kept of all tropical fish. It thrives in moderate temperatures and on a variety of diets. It has overlapping bony scales, and a small mouth surrounded by typical catfish barbels.

### "Million Fish" Is a Name for the Guppy

One of the hardiest and most popular of toy fishes is the guppy, a native of the waters of Trinidad, Barbados, and Venezuela. It is sometimes called the "million fish" because it multiplies so rapidly. It is also known as the "rainbow fish" because of the bright prismatic colors of the inch-long male.

The richly colored Mexican swordtail also adorns many American aquariums. In the male, part of the tail fin is extended into a swordlike, black-edged appendage of orange or green.

Rival of guppy and swordtail for the aquarist's fancy is the paradise fish, probably because it can stand rough handling and drastic changes of temperature. It has a quarrelsome nature. Introduction of a mate or even of food into the aquarium is enough to make it change from its customary striped warm brown to a flashing red, green, or blue. These fish were first found darting past the feet of rice planters in swampy fields of Africa and southeastern Asia.

Among tropical fish with strange habits is the climbing perch, which actually moves overland. The weather fish, eel-like in form, is sensitive to electricity, becoming particularly active before and during a thunderstorm. Southern Asia's archer fish captures insects even two feet above it by shooting sprays of water at its victims.

### Siamese Fighting Fish May Battle for Six Hours

The Siamese fighting fish is a spectacular member of the aquarium population. This fish is so pugnacious that it even fights its reflection in a mirror. It thrusts forward its gill covers to form a ruff around its head, as a fighting cock ruffs its neck feathers when faced with an adversary. This native of Siamese waters will rip an enemy's fins to shreds in an attempt to strike a mortal blow.

Fighting fish are bred for stamina as well as for battle and beauty. With poor strains of fish, the fight may be all over in fifteen minutes. With pedigreed fish, whose ancestors were Bangkok warriors, the fight may last over six hours. Public fish fights are well attended in Siam.

Tropical toy fish may be divided into two groups: those which lay eggs and those which bear their young alive. Among the most popular of the egg-laying variety is the stately Brazilian half-moon, which gets its name from the shape of its long slender fins. It is also called the "fresh-water angel fish."

Some of the egg-laying fish exhibit strange habits during the breeding season.



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A sea wall in various stages of repair hems the city into its compact limits, only six or seven miles in circumference. In population, with under 80,000, it is surpassed by Harrisburg, Pennsylvania.

Shipping from Cádiz today is not record breaking. Sherry wines and salt from the neighborhood's sea salt evaporating tanks are the usual cargo, augmented by those standard products of southern Spain, olives, figs, corks, and salted fish.

Bills of lading in Biblical times—if there were bills of lading then—would have furnished more exotic reading. Amber and tin were shipped by Phoenician settlers to their mother country at the other end of the Mediterranean. Some scholars identify Cádiz with ancient Tarshish, whence came gold and silver, ivory and apes and peacocks to be listed in the first Book of Kings. Wealthy men of ancient Athens and epicurean Rome knew it for its fine foods and its dancing girls; they called it "Gades the Joyous."

Note: Excellent background material about Cádiz may be found in "Adventurous Sons of Cádiz," *National Geographic Magazine*, August, 1924.

For additional Spanish material see "We Escaped from Madrid," *National Geographic Magazine*, February, 1937; "Turbulent Spain," October, 1936; "Palette from Spain," March, 1936; "Montserrat, Spain's Mountain Shrine," January, 1933; "Madrid Out-of-Doors," August, 1931; "Pursuing Spanish Bypaths Northwest of Madrid," January, 1931; "Seville, More Spanish Than Spain," "On the Bypaths of Spain," and "Barcelona, Pride of the Catalans," March, 1929; and "From Granada to Gibraltar," August, 1924.

A map of Spain, showing Cádiz, will be found in the GEOGRAPHIC NEWS BULLETINS, week of October 5, 1936, page 4.

**Bulletin No. 4, February 1, 1937.**

*Photograph from Harriet Chalmers Adams*

**CORK FROM CÁDIZ "STOPS" BOTTLES A HEMISPHERE AWAY**

**Cádiz is one of the ports for the world's leading cork-producing area, southwestern Spain and Portugal. Piles of bark, stripped skillfully every nine years from the evergreen cork-oak tree, are hauled through the streets of the ancient white city to docks along the well-enclosed harbor. The same harbor, two centuries ago, saw a bustle of commerce in gold, silver, and other New World treasures, but shipping declined as Spain gradually lost her colonies. Some of the cork is used locally, however, to cap bottles of sherry wine, which comes from the nearby city of Jérez de la Frontera. It was a mispronunciation of Jérez that gave us the name "sherry."**

Gouramis, fighting fish and paradise fish make floating bubble nests to which their eggs adhere. These fish form bubbles by coating mouthfuls of air with a sticky secretion.

Note: See also "Tropical Fish Immigrants Reveal New Nature Wonders" and "Rainbow Denizens of the Aquarium" (color insert), *National Geographic Magazine*, January, 1934; "Tropical Toy Fishes," also "Iridescent Denizens of the Aquarium," March, 1931; and "Interesting Citizens of the Gulf Stream," January, 1921.

**Bulletin No. 5, February 1, 1937.**

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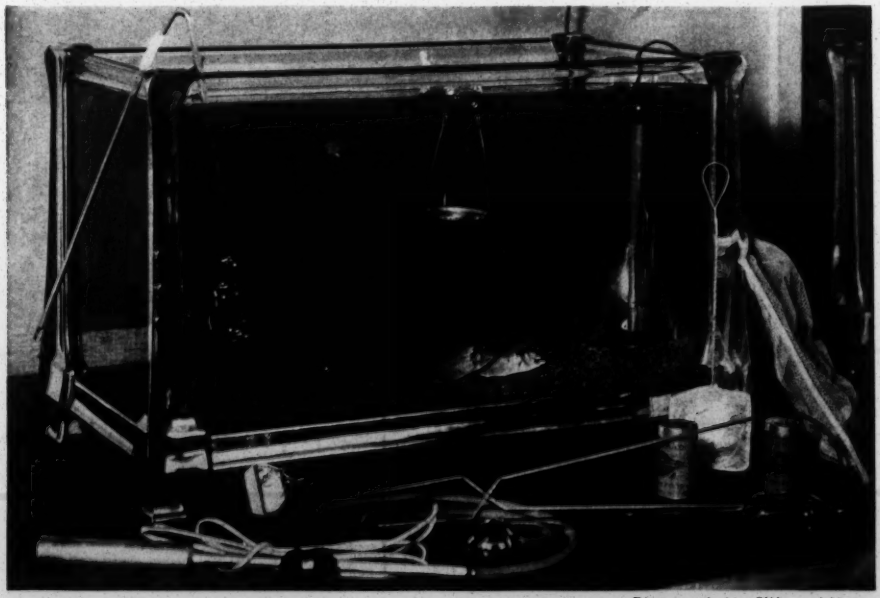

*Photograph by Clifton Adams*

**TO MAKE TROPICAL FISH FEEL AT HOME FAR FROM HOME**

**A comfortably furnished aquarium is heated and lighted by the same electric "furnace" (right). The floating feeding dish (center) serves as a movable dining room, extra food for which appears at lower right. Tank cleaners reclining against the aquarium await janitor service, and planting forceps in front are for landscape gardening. Other equipment includes a dip-net (right), electric immersion heaters (front), and siphons.**